

DETAILED ACTION

Specification

1. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 01/27/06 was filed. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections

3. Claim 43 is objected to because of the following informalities: "A computer program product comprising a computer usable medium having readable program code embodied in the medium, the computer program product includes at least one component to:" should be replaced by – A computer usable medium encoded with a computer program product has readable program code embodied in the medium, the computer program product includes at least one component to: --- . Appropriate correction is required.
4. Claims 1-43 are pending.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 25-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Bova et al. (Patent No.: US 7,313,129 B1).

Regarding claim 25, Bova '129 disclose at least one resource manager (figure 6B, Signaling Gateway 44) that monitors Integrated Services Digital Network User Part (ISUP) messages from at least one network node (figure 6B, PSTN switch 13) for routing information and reroutes a call across a packet network (figure 3, Call agent 46a, Call agent 46b, Call agent 46c) when the routing information (figure 5, routing key table, DPC "destination point codes", col. 4, lines 60-67, routing key table) corresponds to a known packet destination (figure 6B, col. 6, lines 22-27, the signaling gateway 44 receives the ISUP message from PSTN switch 13, using the routing key table to map a received signaling message to a corresponding selected call agent 46) (col. 4, lines 60-67, col. 6, lines 20-27, col. 9, lines 10-17).

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7. Regarding claim 26, Bova '129 disclose wherein the routing information (figure 5, DPC) corresponds to data in an entry in a routing database, the data including at least any one of a carrier access code (figure 5, Original point codes "OPC", destination point code "DPC", col. 4, lines 60-67).

8. Regarding claim 27, Bova '129 disclose at least one media gateway (figure 3, MGWs 48a, 48b, 48c) in communication with the at least one RM (figure 3, signal gateway 44) and the packet network (figure 3, IP network 20).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bova et al. (Patent No.: US 7,313,129 B1) in view of Huberman et al. (Patent No.: US 7,002,915 B1).

Regarding claim 28, Bova '129 disclose the limitations of claim 27 above.

Bova '129 however fails to disclose wherein the at least one RM coordinates call setup and release among the at least one media gateway and the at least one network node such that the ISUP messages, one or more media gateway commands and one or

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more packet messages are sequenced to establish and release a bearer path associated with the call.

Loftus '524 from the same or similar fields of endeavor teach wherein the at least one RM (figure 2, Call Server) coordinates call setup (figure 2, IAM (ISUP)) and release (figure 2, REL (ISUP)) among the at least one media gateway (figure 2, Trunk interworking Functions & ATM Network) and the at least one network node such that the ISUP messages, one or more media gateway commands and one or more packet messages are sequenced to establish and release a bearer path associated with the call (col. 7, lines 37-60, IAM set-up, REL 'Release message).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the at least one RM coordinates call setup and release among the at least one media gateway and the at least one network node such that the ISUP messages, one or more media gateway commands and one or more packet messages are sequenced to establish and release a bearer path associated with the call taught by Loftus '524 into the system of Bova '129, since Loftus '524 recited the motivation in the col. 4, lines 30-35 which provide control, tracking and recording functionality respecting telephone calls through the system.

11. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combined system (Bova '129 – Loftus '524) in view of Ryu et al. (Pub. No.: US 2003/0231623 A1).

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Regarding claim 29, the combined system (Bova '129 – Loftus '524) disclose the limitations of claim 25 above.

However, the combined system (Bova '129 – Loftus '524) are silent to disclosing wherein the at least one network node is a soft switch and the at least one RM translates at least one ISUP message to a bearer independent call control (BICC) message and translates at least one BICC message to at least one ISUP message and coordinates with the media gateway so that the at least one BICC message, at least one ISUP message and one or more media gateway commands establish and release the call and bearer path.

Ryu '623 from the same or similar fields of endeavor disclose wherein the at least one network node is a soft switch and the at least one RM translates at least one ISUP message to a bearer independent call control (BICC) message and translates at least one BICC message to at least one ISUP message and coordinates with the media gateway so that the at least one BICC message, at least one ISUP message and one or more media gateway commands establish and release the call and bearer path ([0036] translates at least one ISUP message to a bearer independent call control (BICC)).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the at least one network node is a soft switch and the at least one RM translates at least one ISUP message to a bearer independent call control (BICC) message and translates at least one BICC message to at least one ISUP message and coordinates with the media gateway so that the at least one BICC message, at least one ISUP message and one or more media gateway commands

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establish and release the call and bearer path taught by Ryu '623 into the combined system (Bova '129 – Loftus '524), since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

12. Claims 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bova et al. (Patent No.: US 7,313,129 B1) in view of Ryu et al. (Pub. No.: US 2003/0231623 A1).

Regarding to claim 30, Bova '129 disclose the limitations of claim 25 above.

However, Bova '129 are silent to disclosing wherein the at least one RM is a self learning switch and further routes the call across a time division multiplexing (TDM) network when the routing information corresponds to an unknown destination and appends a Tag which identifies the at least one RM to the ISUP message for propagation across the TDM network.

Ryu '623 from the same or similar fields of endeavor disclose wherein the at least one RM is a self learning switch and further routes the call across a time division multiplexing (TDM) network when the routing information corresponds to an unknown destination and appends a Tag ([0046] assigning CIC to the IAM in ISUP format) which identifies the at least one RM to the ISUP message for propagation across the TDM network.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the at least one RM is a self learning switch and further routes the call across a time division multiplexing (TDM) network when the routing information corresponds to an unknown destination and appends a Tag which identifies the at least one RM to the ISUP message for propagation across the TDM network taught by Ryu '623 into the system of Bova '129 , since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

13. Regarding claim 31, Bova '129 disclose the limitations of claim 25 above.

However, Bova '129 are silent to disclosing wherein at least one other RM responds to the Tag by sending a tag seen message to the at least one RM and propagates the ISUP message along with new information that identifies the at least one other RM across the TDM network.

Ryu '623 disclose wherein at least one other RM (figure 3, originating media gateway controller 34) responds to the Tag ([0046], assigning CIC tag) by sending a tag seen message to the at least one RM (figure 3, terminating media gateway controller 33) and propagates the ISUP message along with new information that identifies the at least one other RM across the TDM network.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein at least one other RM responds to the Tag by sending a tag seen message to the at least one RM and propagates the ISUP message along with

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new information that identifies the at least one other RM across the TDM network taught by Ryu '623 into the system of Bova '129 , since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

14. Regarding claim 32, Bova '129 disclose the limitations of claim 25 above.

However, Bova '129 are silent to disclosing wherein the at least one RM creates one or more routing entries in a routing database corresponding to the destination of any RM that reports the Tag seen message.

Ryu '623 disclose wherein the at least one RM creates one or more routing entries ([0064], table 2) in a routing database corresponding to the destination of any RM that reports the Tag ([0046] assigning CIC tag) seen message

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the at least one RM creates one or more routing entries in a routing database corresponding to the destination of any RM that reports the Tag seen message taught by Ryu '623 into the system of Bova '129 , since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

15. Claims 1, 2, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin (Patent No.: US 7,050,414 B2) in view of Loftus (Patent No: US 7,286,524 B1).

Regarding claim 1, Lin '414 disclose a system for converging networks, comprising at least one resource manager (figure 5, CSIWF 505, TDM LEC 533) which provides connection from PSTN to a signal transfer point (STP) in a network (see figure 5, col. 5, lines 1-7, CSIWF505 provides an interface to a local STP (signal transfer point) 539 or 541 for the purpose of receiving set-up message from the TDM LEC switches and sending / receiving TCAP messages to / from a Service Control point (SCP), col. 5, lines 33-40, CSIWF 505 interworks with the STP 539 like regular tandem switch and routes the set-up message to the NFS 519) and establishes a bearer path over a packet network (col. 5, lines 38-40, CSDIWF 515 sets up a bearer channel through the packet transport network 523, and at the same time, regenerates an IAM message to the serving MSC 545 via STP 541).

However, Lin '414 is silent to disclosing at least one resource manager (RM) which provides routing information from a network node to a signal transfer point (STP) in a network.

Loftus '524 from the same or similar fields of endeavor disclose at least one resource manager (figure 2, SSP 30) which provides routing information from a network node (figure 2, Caller 12) to a signal transfer point (figure 2, STP 34, 36) in a network (col. 4, lines 58-67, SCPs 38, 40 supply routing information to the SSPs 30, 32 to determine how to route the call from the caller 12 to the STP 34, STP 36, STP 42, STP 44) (also see col. 7, lines 55-67, if a caller 12 places a telephone call over the PSTN 14,

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an SSP 30 in the PSTN receive the call and uses the routing information from SCP 38 or 40 to determine point code for the call)

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply at least one resource manager (RM) which provides routing information from a network node to a signal transfer point (STP) in a network taught by Loftus '524 into the system of Lin '414, since Loftus '524 recited the motivation in the col. 2, lines 10-15 which reduces the load on the STP pair in the SS7 network thus provides a fault tolerant structure for the media gateway.

16. Regarding claim 2, Lin '414 disclose wherein the at least one RM monitors messages for the routing information associated with a call from the network node and based on an entry in a routing database corresponding to the routing information, routes the call over the packet network and establishes the bearer path (col. 5, lines 38-40, CSDIWF 515 sets up a bearer channel through the packet transport network 523, and at the same time, regenerates an IAM message to the serving MSC 545 via STP 541).

17. Regarding claim 10, Lin '414 disclose wherein the at least one RM is at least two RMs (figure 5, CSIWF 505, CSIWF 515) establishing a bearer path over the packet network between the network node and another network node (figure 5, PSTN 525, PSTJN 529).

18. Claims 3 – 8, 12 – 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined system (Lin '414 – Loftus '524) in view of Ryu et al. (Pub. No.: US 2003/0231623 A1).

Regarding claim 3, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 1 above.

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing a media gateway (MG) between the packet network and the network node under control of the at least one RM.

Ryu '623 from the same or similar fields of endeavor teaches a media gateway (MG) (figure 3, originating media gateway 24) between the packet network (figure 3, packet network 10) and the network node (figure 3, end telephone office connecting to originating PSTN 51) under control of the at least one RM (figure 3, originating signaling gateway 34) (also see in Paragraph [0064]).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply a media gateway (MG) between the packet network and the network node under control of the at least one RM taught by Ryu '623 into the combined system (Lin '414 – Loftus '524), since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

Regarding claim 4, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 3 above.

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing wherein the MG assists in establishing the bearer path under control of the at least one RM.

Ryu '623 from the same or similar fields of endeavor disclose wherein the MG (figure 3, originating media gateway 24) assists in establishing the bearer path under control of the at least one RM (figure 3, originating media gateway controller 34, [0064] table 2).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the MG assists in establishing the bearer path under control of the at least one RM taught by Ryu '623 into the combined system (Lin '414 – Loftus '524), since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

Regarding to claim 5, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 3 above.

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing another network node, wherein the MG provides controls to establish the bearer path between the network node and the another network node.

Ryu '623 from the same or similar fields of endeavor teaches another network node, wherein the MG (figure 3, originating media gateway 24) provides controls to establish the bearer path between the network node (figure 3, end telephone office connecting to the PSTN 51) and the another network node (figure 3, end telephone office connecting to the PSTN 52) (also see paragraph [0064]).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply another network node, wherein the MG provides controls to establish the bearer path between the network node and the another network node taught by Ryu '623 into the combined system (Lin '414 – Loftus '524), since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

Regarding claim 6, Lin '414 disclose wherein the another network node is one of a soft switch and a time division multiplexing switch (TDM) (figure 5, TDM LEC switches 533, 535, 537, col. 5, lines 1-10, TDM LEC switches).

Regarding to claim 7, Lin '414 disclose wherein the another network node is a soft switch (figure 5, TDM LEC switches 533, 535, 537, col. 5, lines 1-10, TDM LEC switches).

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing

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the at least one RM converts Integrated Services Digital Network User Part (ISUP) messages to bearer independent call control (BICC) messages and converts BICC messages to ISUP messages.

Ryu '623 disclose the at least one RM converts Integrated Services Digital Network User Part (ISUP) messages to bearer independent call control (BICC) messages and converts BICC messages to ISUP messages (figure 3, originating media gateway controller 34, [0064] table 2, translating Integrated Services Digital Network User Part (ISUP) messages to bearer independent call control (BICC) messages and translating BICC messages to ISUP messages).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the MG assists in establishing the bearer path under control of the at least one RM taught by Ryu '623 into the combined system (Lin '414 – Loftus '524), since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

Regarding to claim 8, Lin '414 disclose wherein the at least one RM coordinates processing of time division multiplexing (TDM) connections (figure 5, TDM LEC 533, 535, 537, col. 5, lines 1-10) and packet connections (figure 5, packet transport 523) to create the bearer path.

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Regarding to claim 12, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 10 above.

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing at least two media gateways (MGs) corresponding to the at least two RMs, the at least two MGs interfacing with the network node and the another network node, respectively, and the packet network .

Ryu '623 disclose at least two media gateways (MGs) (figure 3, originating media gateway 24, 23) corresponding to the at least two RMs (figure 3, originating media gateways 24, 23), the at least two MGs (figure 3, media gateway controllers 34, 33) interfacing with the network node (end telephone office connecting PSTN 51) and the another network node (end telephone office connecting PSTN 52) , respectively, and the packet network (figure 3, [0064])

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the MG assists in establishing the bearer path under control of the at least one RM taught by Ryu '623 into the combined system (Lin '414 – Loftus '524), since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

Regarding to claim 13, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 1 above.

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However, the combined system (Lin '414 – Loftus '524) are silent to disclosing wherein the at least one RM determines whether a connection can be established over the packet network based on the routing information

Ryu '623 disclose wherein the at least one RM (figure 3, media gateway 24) determines whether a connection can be established over the packet network based on the routing information ([0064] routing information).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the MG assists in establishing the bearer path under control of the at least one RM taught by Ryu '623 into the combined system (Lin '414 – Loftus '524), since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

Regarding to claim 14, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 13 above.

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing wherein the at least one RM determines whether the routing information corresponds to a pre-determined packet route.

Ryu '623 disclose wherein the at least one RM (figure 3, media gateway 24) determines whether the routing information corresponds to a pre-determined packet route ([0064] routing information)

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the MG assists in establishing the bearer path under control of the at least one RM taught by Ryu '623 into the combined system (Lin '414 – Loftus '524), since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

Regarding claim 15, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 13 above.

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing a predefined database having the routing information and a corresponding packet route

Ryu '623 disclose a predefined database having the routing information and a corresponding packet route (Paragraph [0064] routing information table 2)

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the MG assists in establishing the bearer path under control of the at least one RM taught by Ryu '623 into the combined system (Lin '414 – Loftus '524), since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

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Regarding claim 16, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 13 above.

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing a database which is dynamically created and the routing information is reconciled to a corresponding packet route as calls are originated and processed.

Ryu '623 disclose a database which is dynamically created and the routing information is reconciled to a corresponding packet route as calls are originated and processed (figure 3, Paragraph [0064] routing information).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the MG assists in establishing the bearer path under control of the at least one RM taught by Ryu '623 into the combined system (Lin '414 – Loftus '524), since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

19. Claims 9, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined system (Lin '414 – Loftus '524) in view of Huberman (Patent No.: US 7,002,915 B1).

Regarding to claim 9, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 8 above.

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing

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wherein the at least one RM establishes, monitors and releases, in any combination, the bearer path.

Huberman '915 from the same or similar fields of endeavor disclose wherein the at least one RM establishes, monitors and releases, in any combination, the bearer path (figure 2, Release ISUP) (col. 7, lines 40-50, lines 53-60, Release Message).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the at least one RM establishes, monitors and releases, in any combination, the bearer path into the combined system (Lin '414 – Loftus '524), since Huberman '915 recited the motivation in the col. 4, lines 40-45 which provides control, tracking and recording functionality respecting telephone call through the system.

Regarding claim 11, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 10 above.

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing wherein the two RMs coordinate processing of time division multiplexing (TDM) connections and packet connections to establish and release the bearer path.

Huberman '915 from the same or similar fields of endeavor disclose wherein the two RMs (figure 1, TIWFs) coordinate processing of time division multiplexing (TDM) connections and packet connections (figure 1, ATM Transport Network) to establish and release the bearer path.

(figure 2, Release ISUP) (col. 7, lines 40-50, lines 53-60, Release Message).

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Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the at least one RM establishes, monitors and releases, in any combination, the bearer path into the combined system (Lin '414 – Loftus '524), since Huberman '915 recited the motivation in the col. 4, lines 40-45 which provides control, tracking and recording functionality respecting telephone call through the system.

20. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combined system (Lin '414 – Loftus '524) in view of Bova et al. (Patent No.: US 7,313,129 B1).

Regarding claim 17, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 1 above.

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing wherein the routing information is one of a directory number and a carrier access code (CAC).

Bova '129 as the same or similar fields of endeavor disclose wherein the routing information is one of a directory number and a carrier access code (CAC) (figure 5, routing key table, DPC “destination point codes”, col. 4, lines 60-67, routing key table).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined system (Lin '414 – Loftus '524) with the teaching of Bova '129, since Bova '129 recited the motivation in the col. 3, lines 40-45 which

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shares of state information between the SG 14 and the MGC 16, and the necessity of proprietary software implementations.

21. Claims 18-21, 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined system (Lin '414 – Loftus '524) in view of Eriksson (Patent No.: US 7,301,949 B2).

Regarding claim 18, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 1 above.

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing wherein the at least one RM is a plurality of self learning switches (SLSs).

Eriksson '949 as the same of similar field of endeavor discloses wherein the at least one RM is a plurality of self learning switches (SLSs) (col. 10, lines 60-65, self-learning switches).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined system (Lin '414 – Loftus '524) with the teaching of Eriksson '949, since Eriksson '949 recited the motivation in the col. 2, lines 55-60, which makes it possible to transport traffic in a connection-oriented mode using the network infrastructure and hard hardware of a traditionally connectionless network.

Regarding to claim 19, Loftus '524 disclose wherein one of the plurality of SSP (figure 2, SSP) provides an identity (ID) Tag to an ISUP message and further propagates the ISUP message and ID Tag over the network (figure 2, SSP, col. 2, lines 62-67).

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However, the combined system (Lin '414 – Loftus '524) are silent to disclosing where one of the plurality of SLSs (self learning switches).

Eriksson '949 as the same of similar field of endeavor discloses wherein the at least one RM is a plurality of self learning switches (SLSs) (col. 10, lines 60-65, self-learning switches).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined system (Lin '414 – Loftus '524) with the teaching of Eriksson '949, since Eriksson '949 recited the motivation in the col. 2, lines 55-60, which makes it possible to transport traffic in a connection-oriented mode using the network infrastructure and hard hardware of a traditionally connectionless network.

Regarding to claim 20, Loftus '524 disclose wherein the one of the plurality of STP propagates the ISUP message and ID Tag to a second of the plurality of SSPs which then provides another unique ID Tag to the ISUP message and sends a tag seen message including an ID of the second of the plurality of SSPs to the one of the plurality of SSPs (figure 2, SSP, col. 2, lines 62-67).

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing where one of the plurality of SLSs (self learning switches).

Eriksson '949 as the same of similar field of endeavor discloses wherein the at least one RM is a plurality of self learning switches (SLSs) (col. 10, lines 60-65, self-learning switches).

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Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined system (Lin '414 – Loftus '524) with the teaching of Eriksson '949, since Eriksson '949 recited the motivation in the col. 2, lines 55-60, which makes it possible to transport traffic in a connection-oriented mode using the network infrastructure and hard hardware of a traditionally connectionless network.

Regarding to claim 21, Lin '414 disclose the limitations of claim 19 above.

However, Lin '414 are silent to disclosing wherein the tag seen message is sent over at least any one of a packet network, a SS7 network, and a wireless network . Loftus '524 disclose wherein the tag seen message is sent over at least any one of a packet network, a SS7 network, and a wireless network (figure 2, SSP, col. 2, lines 62-67).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the tag seen message is sent over at least any one of a packet network, a SS7 network, and a wireless network taught by Loftus '524 into the system of Lin '414, since Loftus '524 recited the motivation in the col. 4, lines 30-35 which provide control, tracking and recording functionality respecting telephone calls through the system.

Regarding to claim 23, Lin '414 disclose wherein the one of the plurality of SSPs builds a routing entry in a routing database to define one or more routes to at least one of

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the plurality of SSPs when a final tag seen message is received by the one of 5 the plurality of SSPs (figure 2, SSP, col. 2, lines 62-67).

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing where one of the plurality of SLSs (self learning switches).

Eriksson '949 as the same of similar field of endeavor discloses wherein the at least one RM is a plurality of self learning switches (SLSs) (col. 10, lines 60-65, self-learning switches).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined system (Lin '414 – Loftus '524) with the teaching of Eriksson '949, since Eriksson '949 recited the motivation in the col. 2, lines 55-60, which makes it possible to transport traffic in a connection-oriented mode using the network infrastructure and hard hardware of a traditionally connectionless network.

Regarding claim 24, Lin '414 disclose the limitations of claim 23 above.

However, Lin '414 is silent to disclosing wherein the routing entry includes at least any one of an Internet Protocol (IP) address, a directory number, a carrier access code, an SLS address, a i0 name of the B-party, and a network node identifier.

Loftus ' 524 disclose wherein the routing entry includes at least any one of an Internet Protocol (IP) address, a directory number, a carrier access code, an SLS address, a i0 name of the B-party, and a network node identifier (col. 4, lines 62-67, routing informations).

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Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the tag seen message is sent over at least any one of a packet network, a SS7 network, and a wireless network taught by Loftus '524 into the system of Lin '414, since Loftus '524 recited the motivation in the col. 4, lines 30-35 which provide control, tracking and recording functionality respecting telephone calls through the system.

22. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin (Patent No.: US 7,050,414 B2) in view of Loftus (Patent No: US 7,286,524 B1).

Regarding claim 33, Lin '414 disclose a system for converging networks, comprising at least one resource manager (figure 5, CSIWF 505, TDM LEC 533) which provides connection from PSTN to a signal transfer point (STP) in a network (see figure 5, col. 5, lines 1-7, CSIWF505 provides an interface to a local STP (signal transfer point) 539 or 541 for the purpose of receiving set-up message from the TDM LEC switches and sending / receiving TCAP messages to / from a Service Control point (SCP), col. 5, lines 33-40, CSIWF 505 interworks with the STP 539 like regular tandem switch and routes the set-up message to the NFS 519) and establishes a bearer path over a packet network based on the routing information (col. 5, lines 38-40, CSDIWF 515 sets up a bearer channel through the packet transport network 523, and at the same time, regenerates an IAM message to the serving MSC 545 via STP 541).

However, Lin '414 is silent to disclosing at least one resource manager (RM) which provides routing information from a network node to a signal transfer point (STP) in a network.

Loftus '524 from the same or similar fields of endeavor disclose at least one resource manager (figure 2, SSP 30) which provides routing information from a network node (figure 2, Caller 12) to a signal transfer point (figure 2, STP 34, 36) in a network (col. 4, lines 58-67, SCPs 38, 40 supply routing information to the SSPs 30, 32 to determine how to route the call from the caller 12 to the STP 34, STP 36, STP 42, STP 44) (also see col. 7, lines 55-67, if a caller 12 places a telephone call over the PSTN 14, an SSP 30 in the PSTN receive the call and uses the routing information from SCP 38 or 40 to determine point code for the call)

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply at least one resource manager (RM) which provides routing information from a network node to a signal transfer point (STP) in a network taught by Loftus '524 into the system of Lin '414, since Loftus '524 recited the motivation in the col. 2, lines 10-15 which reduces the load on the STP pair in the SS7 network thus provides a fault tolerant structure for the media gateway.

23. Claims 34 – 37, 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined system (Lin '414 – Loftus '524) in view of Ryu et al. (Pub. No.: US 2003/0231623 A1).

Regarding claim 34, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 33 above.

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing monitoring the routing information associated with a call from the network node; and routing the call and establishing a bearer path over the packet network when an entry in a routing database corresponds to the routing information.

Ryu '623 disclose monitoring the routing information associated with a call from the network node; and routing the call and establishing a bearer path over the packet network when an entry in a routing database corresponds to the routing information (figure 3, [0064] routing information table 2, translating Integrated Services Digital Network User Part (ISUP) messages to bearer independent call control (BICC) messages and translating BICC messages to ISUP messages).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the MG assists in establishing the bearer path under control of the at least one RM taught by Ryu '623 into the combined system (Lin '414 – Loftus '524), since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

Regarding claim 35, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 33 above.

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However, the combined system (Lin '414 – Loftus '524) are silent to disclosing establishing the bearer path between the packet network and the network node with the RM instructing at least one media gateway to 10 assist in establishing the bearer path. Ryu '623 disclose establishing the bearer path between the packet network and the network node with the RM instructing at least one media gateway to 10 assist in establishing the bearer path (figure 3, [0064] establishing the bearer path between the packet network and the network node).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the MG assists in establishing the bearer path under control of the at least one RM taught by Ryu '623 into the combined system (Lin '414 – Loftus '524), since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

Regarding claim 36, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 33 above.

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing establishing the bearer path between the network node and another network node.

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Ryu '623 disclose establishing the bearer path between the network node and another network node (figure 3, [0064] establishing the bearer path between the packet network and the network node).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the MG assists in establishing the bearer path under control of the at least one RM taught by Ryu '623 into the combined system (Lin '414 – Loftus '524), since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

24. Regarding claim 37, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 33 above.

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing converting at least one Integrated Services Digital Network (ISDN) User Part (ISUP) message to at least one bearer independent call control (BICC) message; and converting the at least one BICC message to the at least one ISUP message.

Ryu '623 disclose converting at least one Integrated Services Digital Network (ISDN) User Part (ISUP) message to at least one bearer independent call control (BICC) message; and converting the at least one BICC message to the at least one ISUP message (figure 3, [0064] routing information table 2, translating Integrated Services

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Digital Network User Part (ISUP) messages to bearer independent call control (BICC) messages and translating BICC messages to ISUP messages).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the MG assists in establishing the bearer path under control of the at least one RM taught by Ryu '623 into the combined system (Lin '414 – Loftus '524), since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

25. Regarding claim 39, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 33 above.

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing determining whether the routing information corresponds to a predetermined packet route and the routing information includes one of a directory number and a carrier access code.

Ryu '623 as the same or similar fields of endeavor disclose determining whether the routing information corresponds to a predetermined packet route and the routing information includes one of a directory number and a carrier access code (figure 3, [0064] routing information table 2, translating Integrated Services Digital Network User Part (ISUP) messages to bearer independent call control (BICC) messages and translating BICC messages to ISUP messages).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the MG assists in establishing the bearer path under control of the at least one RM taught by Ryu '623 into the combined system (Lin '414 – Loftus '524), since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

26. Regarding claim 40, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 33 above.

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing adding a Tag to an ISUP message which identifies a creator of the Tag; propagating the ISUP message with the Tag across the network; sending a Tag seen message which identifies a sender of the Tag seen message over the packet network; and propagating the ISUP message including the identity of the sender of the Tag seen message across the network.

Ryu '623 as the same or similar fields of endeavor disclose adding a Tag to an ISUP message which identifies a creator of the Tag; propagating the ISUP message with the Tag across the network; sending a Tag seen message which identifies a sender of the Tag seen message over the packet network; and propagating the ISUP message including the identity of the sender of the Tag seen message across the network

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(figure 3, [0064] routing information table 2, translating Integrated Services Digital Network User Part (ISUP) messages to bearer independent call control (BICC) messages and translating BICC messages to ISUP messages).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the MG assists in establishing the bearer path under control of the at least one RM taught by Ryu '623 into the combined system (Lin '414 – Loftus '524), since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

27. Regarding claim 41, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 33 above.

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing creating at least one routing entry in a routing database when a last Tag seen message is received, the entry defining a route including at least any one of an Internet Protocol address (IP) address, a network node identifier, a RM address, a B-party name, and a media gateway address.

Ryu '623 disclose as the same or similar fields of endeavor disclose creating at least one routing entry in a routing database when a last Tag seen message is received, the entry defining a route including at least any one of an Internet Protocol address (IP) address, a network node identifier, a RM address, a B-party name, and a media gateway address (figure 3, [0064] routing information table 2, translating Integrated

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Services Digital Network User Part (ISUP) messages to bearer independent call control (BICC) messages and translating BICC messages to ISUP messages).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the MG assists in establishing the bearer path under control of the at least one RM taught by Ryu '623 into the combined system (Lin '414 – Loftus '524), since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

28. Regarding claim 42, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 33 above.

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing adding a counter to the ISUP message to track the sequence of the Tag seen message; and incrementing the counter when a Tag seen message is sent.

Ryu '623 disclose as the same or similar fields of endeavor disclose adding a counter to the ISUP message to track the sequence of the Tag seen message; and incrementing the counter when a Tag seen message is sent (figure 3, [0064] routing information table 2, translating Integrated Services Digital Network User Part (ISUP) messages to bearer independent call control (BICC) messages and translating BICC messages to ISUP messages).

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Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the MG assists in establishing the bearer path under control of the at least one RM taught by Ryu '623 into the combined system (Lin '414 – Loftus '524), since Ryu '623 recited the motivation in the paragraph [0021] which the media gateway should support all protocols for fluent communication because BICC protocol and SIP-T protocol, protocols for communicating with other media gateway controller, may be used.

29. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combined system (Lin '414 – Loftus '524) in view of Huberman et al. (Patent No.: US 7,002,915 B1).

Regarding claim 38, the combined system (Lin '414 – Loftus '524) disclose the limitations of claim 33 above.

However, the combined system (Lin '414 – Loftus '524) are silent to disclosing wherein the establishing step includes coordinating processing of time division multiplexing (TDM) connections and packet connections to create and release the bearer path.

Huberman '915 disclose wherein the establishing step includes coordinating processing of time division multiplexing (TDM) connections and packet connections to create and release the bearer path

(figure 2, Release ISUP) (col. 7, lines 40-50, lines 53-60, Release Message).

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Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply wherein the at least one RM establishes, monitors and releases, in any combination, the bearer path into the combined system (Lin '414 – Loftus '524), since Huberman '915 recited the motivation in the col. 4, lines 40-45 which provides control, tracking and recording functionality respecting telephone call through the system.

30. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin (Patent No.: US 7,050,414 B2) in view of Loftus (Patent No: US 7,286,524 B1).

Regarding claim 43, Lin '414 disclose a system for converging networks, comprising at least one resource manager (figure 5, CSIWF 505, TDM LEC 533) which provides connection from PSTN to a signal transfer point (STP) in a network (see figure 5, col. 5, lines 1-7, CSIWF505 provides an interface to a local STP (signal transfer point) 539 or 541 for the purpose of receiving set-up message from the TDM LEC switches and sending / receiving TCAP messages to / from a Service Control point (SCP), col. 5, lines 33-40, CSIWF 505 interworks with the STP 539 like regular tandem switch and routes the set-up message to the NFS 519) and establishes a bearer path over a packet network based on the routing information (col. 5, lines 38-40, CSDIWF 515 sets up a bearer channel through the packet transport network 523, and at the same time, regenerates an IAM message to the serving MSC 545 via STP 541).

However, Lin '414 is silent to disclosing at least one resource manager (RM) which provides routing information from a network node to a signal transfer point (STP) in a network.

Loftus '524 from the same or similar fields of endeavor disclose at least one resource manager (figure 2, SSP 30) which provides routing information from a network node (figure 2, Caller 12) to a signal transfer point (figure 2, STP 34, 36) in a network (col. 4, lines 58-67, SCPs 38, 40 supply routing information to the SSPs 30, 32 to determine how to route the call from the caller 12 to the STP 34, STP 36, STP 42, STP 44) (also see col. 7, lines 55-67, if a caller 12 places a telephone call over the PSTN 14, an SSP 30 in the PSTN receive the call and uses the routing information from SCP 38 or 40 to determine point code for the call)

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply at least one resource manager (RM) which provides routing information from a network node to a signal transfer point (STP) in a network taught by Loftus '524 into the system of Lin '414, since Loftus '524 recited the motivation in the col. 2, lines 10-15 which reduces the load on the STP pair in the SS7 network thus provides a fault tolerant structure for the media gateway.

Allowable Subject Matter

31. Claim 22 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHUONG T. HO whose telephone number is (571)272-3133. The examiner can normally be reached on 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, EDAN ORGAD can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

10/15/08

/Salman Ahmed/

Examiner, Art Unit 2419